

Remarks

The Office Action mailed October 17, 2003, has been carefully reviewed and the foregoing amendment has been made in consequence thereof.

Claims 23-28, 30, 31, 34, 36-40, and 42-43 are now pending in this application. Claims 23-31, 34, 36-40, 42, and 43 stand rejected. Claims 1-22, 29, 32, 33, 35, and 41 have been cancelled.

The specification and Figures 4 and 5 are amended as described above to correct the use of duplicate reference numerals in the informal drawings that were submitted with the application. No new matter has been added to the application.

Applicants note the objections to the drawings. Formal drawings for the above referenced application are submitted herewith. For the reasons set forth above, Applicants request that the objections to the drawings be withdrawn.

Applicants respectfully traverse the objection to the disclosure. The Abstract of the Disclosure has been amended to address the issues noted in the Office Action. For the reasons set forth above, Applicants request that the objection to the disclosure be withdrawn.

The rejection of Claims 25, 27-31, 34, 36-40, 42, and 43 under 35 U.S.C. § 112 is respectfully traversed. Claims 23, 25, 27, 31, 34, 36, and 39 have been amended to address the issues noted in the Office Action. Claim 40 is not intended to be in Markush format, as the claimed heating portion may include items not listed in the claim, and may further include multiple combinations of the claimed elements. For the reasons set forth above, Applicants respectfully request that the Section 112 rejections of Claims 25, 27-31, 34, 36-40, 42, and 43 be withdrawn.

The rejection of Claims 23, 25, and 26 under 35 U.S.C. § 102(b) as being anticipated by Pirkle (U.S. Patent No. 5,623,990) is respectfully traversed.

Pirkle describes a combined safety shower and eyewash station utilizes steam to heat water in a heat exchanger. Cool water is combined with heated water from the water outlet of the heat exchanger by a temperature-regulated mixing valve. Steam is fed to the heat exchanger through a steam valve which is opened automatically when a demand for warm water is sensed by a pressure-drop flow sensor. An overtemperature responsive actuator overrides the demand sensor to shut off the steam. See Abstract. The mixing valve (44) is a temperature-responsive proportioning valve for mixing cool and heated water and delivering a temperature-regulated flow of water to an outlet. A thermal actuator (96) is provided within mixing valve (44). This actuator is preferably a wax-filled thermal actuator having a body (98) containing a wax, formulated so that it melts and expands at a predetermined temperature. Column 5, lines 16-23.

Claim 23 recites an apparatus for supplying fluid at a desired temperature to a heat load. The apparatus comprises "a cold reservoir containing fluid at a temperature below the desired temperature," "a fluid conduit fluidly connected to the cold reservoir" and "a heated bypass loop comprising a heater, a temperature sensor, a heater temperature controller, and a two-way control valve, said loop fluidly connected to the fluid conduit such that a portion of fluid from said fluid conduit is diverted through said heated bypass loop and then returned to said fluid conduit, said temperature sensor sensing a temperature of the portion of fluid exiting said heated bypass loop and providing such temperature to said heater temperature controller, said heater temperature controller comparing such temperature to a setpoint."

Pirkle does not describe nor suggest an apparatus for supplying fluid at a desired temperature to a heat load which includes a temperature sensor sensing a temperature of the portion of fluid exiting the heated bypass loop and providing such temperature to a heater temperature controller which compares such temperature to a setpoint. Rather, Pirkle describes a wax-filled thermal actuator formulated so that the wax melts and expands at a predetermined temperature.

For the reasons set forth above, Claim 23 is submitted to be patentable over Pirkle.

Claims 25 and 26 depend, directly or indirectly, from independent Claim 23. When the recitations of Claims 25 and 26 are considered in combination with the recitations of Claims 23, Applicants submit that dependent Claims 25 and 26 likewise are patentable over Pirkle.

For the reasons set forth above, Applicants respectfully request that the Section 102 rejection of Claims 23, 25, and 26 be withdrawn.

The rejection of Claims 24 and 27-30 under 35 U.S.C. § 103 as being unpatentable over Pirkle is respectfully traversed.

Pirkle is described above. Claim 24 depends from independent Claim 23. For at least the reasons set forth above with respect to Claim 23, Applicants submit that dependent Claim 24 likewise is patentable over Pirkle.

Independent Claim 27 recites a method of supplying fluid at a desired temperature to a heat load. The method comprises "passing a fluid from a cold reservoir containing fluid at a temperature below the desired temperature through a fluid conduit," "passing at least a portion of the fluid in the fluid conduit through a heated bypass loop which includes a heater, a temperature sensor, a programmable temperature controller and a two-way control valve," "heating the fluid in the heated bypass loop," "mixing fluid from the heated bypass loop with fluid from the cold reservoir," "sensing a temperature of the portion of fluid exiting the heated bypass loop with the temperature sensor" and "providing such temperature to the programmable temperature controller, the programmable temperature controller controlling the fluid mix to achieve the desired temperature at the heat load with a temperature control precision of about $\pm 0.1^{\circ}\text{F}$."

Pirkle does not describe nor suggest a method for supplying fluid at a desired temperature to a heat load which includes sensing a temperature of the portion of fluid exiting the heated bypass loop and providing such temperature to a programmable temperature controller which controls the fluid mix to achieve the desired temperature at the heat load. Rather, Pirkle suggests a temperature controlled water delivery system that is based on a thermal actuator that

is constructed with a wax that melts and expands at a single, predetermined temperature, resulting in a single temperature of water being supplied by the system.

For the reasons set forth above, Claim 27 is submitted to be patentable over Pirkle.

Claim 29 is canceled. Claims 28 and 30 depend, directly or indirectly, from independent Claim 27. When the recitations of Claims 28 and 30 are considered in combination with the recitations of Claim 27, Applicants submit that dependent Claims 28 and 30 likewise are patentable over Pirkle.

For the reasons set forth above, Applicants respectfully request that the Section 103 rejection of Claims 24 and 27-30 be withdrawn.

In view of the foregoing amendments and remarks, all the claims now active in this application are believed to be in condition for allowance. Reconsideration and favorable action is respectfully solicited.

Respectfully Submitted,



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